

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1, 2, 5-7, and 9 are pending in this application. Claims 1-2 and 7 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 4,931,616 to Usui et al. (herein "Usui") in view of U.S. 2002/0040893 A1 to Arai et al. (herein "Arai") and U.S. 2003/0116545 A1 to Kaji. Claims 5-6 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Usui, Arai and Kaji, and further in view of U.S. patent 6,621,044 to Jain et al. (herein "Jain"). Those rejections are traversed as now discussed.

Initially, applicants and applicants' representative wish to thank Examiner Elve for the interview granted applicants' representative on April 28, 2010. During that interview the outstanding rejections were discussed in detail, and applicants' representative presented comments that none of the applied art disclosed or suggested moving a total reflection mirror into and from an optical path during an off-time of a laser beam. Further, during the interview claim amendments to even more explicitly recite that feature were discussed. The present response submits such discussed claim amendments. During the interview Examiner Elve indicated she would further consider such features when formally presented in a filed response.

Independent claims 1, 2, and 7 are herein amended to more clearly recite certain features therein, as noted above, and now particularly clarify the total reflection mirror moves into and retracts from the optical path during an off-time of the laser beam:

. . . such that said total reflection mirror begins being driven for the moving into and retracting from the optical path when the predetermined pulse of said laser beam changes to an off-state, and driving of said total reflection mirror for the moving into and retracting from the optical path is completed before the predetermined pulse of said laser beam changes to an on-state.

The above-noted features are believed to be clear from the original disclosure, see for example page 22, lines 13-26.

According to the claims as currently written, and with reference to Figure 1 in the present specification as a non-limiting example, a total reflection mirror 8 is moved into and retracted from the optical path at an off-time of the laser beam, i.e. when the laser beam is *off*.

In further detail, Figure 1 in the present specification as a non-limiting example shows a laser beam is output from a laser oscillator onto a plurality of optical path systems 30, 40. A total reflection mirror 8 as an optical path switch can be placed into and retracted from an optical path to determine on which of the optical paths 30 or 40 the output laser beam propagates. Further, the total reflection mirror 8 is placed into or retracted from the optical path during an *off-time* of the laser beam (see also the specification for example at page 22, lines 18-26). The claims now clarify the off-time is:

. . . such that said total reflection mirror begins being driven for the moving into and retracting from the optical path when the predetermined pulse of said laser beam changes to an off-state, and driving of said total reflection mirror for the moving into and retracting from the optical path is completed before the predetermined pulse of said laser beam changes to an on-state.

Applicants submit the above-noted features are neither taught nor suggested by the applied art.

The outstanding Office Action appears to now newly cite Kaji with respect to the features of driving a reflection mirror to be moved into and retracted from an optical path during an off-time, the outstanding Office Action specifically stating:

Applicant argues that the off-time of a laser is not taught. The examiner respectfully notes that Kaji discloses the use of a shutter to block or emit the laser beam.¹

¹ Office Action of February 3, 2010, top of page 5.

Applicants submit that grounds for the rejection is misconstruing the disclosures in Kaji relative to the claims as written.

Kaji discloses for example in Figure 9 the use of a shutter 8 that can either (1) reflect a laser beam L or (2) be retracted to allow the laser beam L to proceed without being reflected.

Applicants submit the outstanding Office Action is misconstruing the disclosures in Kaji relative to the claimed features. That is, Kaji does not disclose the use of the shutter 8 to control a laser beam to be off for a process of moving a mirror. In that respect applicants draw attention to Kajiu for example at paragraphs [0084]-[0085]. In those portions Kaji discloses a first embodiment in Figure 7 and 8 in which a partial reflection mirror 6(b) can be moved. Kaji further discloses Figure 9 is a contrasting embodiment in which instead of utilizing such a moveable mirror 6(b), a shutter 8 is provided. That is, the embodiment utilizing the shutter 8 in Kaji does not even include a movable mirror, but instead utilizes a shutter *instead of* a movable mirror. Applicants also in that respect point out as clearly shown in Figure 9 in Kaji the shutter 8 is utilized to either allow light to pass therethrough or to allow light to be reflected to a radiating section 29 including a fan 28.

Thereby, the citation of the shutter 8 in Kaji is not at all even closely related to the claimed features as that shutter 8 in Kaji does not even control a laser beam to be off for moving of a mirror, but instead is directed to an embodiment that does not even utilize a moveable mirror.

Further, as noted above the claims now even further recite the total reflection mirror moves into and retracts from the optical path:

. . . such that said total reflection mirror begins being driven for the moving into and retracting from the optical path when the predetermined pulse of said laser beam changes to an off-state, and driving of said total reflection mirror for the moving into

and retracting from the optical path is completed before the predetermined pulse of said laser beam changes to an on-state.

Applicants submit clearly the above-noted features are not even alluded to much less taught in Kaji.

Thereby, Kaji is deficient in not disclosing the features relied upon in the Office Action and is further deficient in not disclosing the features clarified in the claims as currently written. Thereby, applicants submit Kaji does not cure the deficiencies of Usui or Arai with respect to the features recited in the claims as currently written.

Moreover, no disclosures in Jain were cited with respect to the above-noted features.

In view of the foregoing comments, applicants respectfully submit amended independent claims 1, 2, and 7, and accordingly claims 5, 6, and 9 dependent therefrom, positively recite features neither taught nor suggested by the applied art, and thus are allowable over the applied art.

As no other issues are pending in this application, it is respectfully submitted this application is in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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